

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: June 6-7, 2007

Reference No.: 2.5d.(2)
Action Item

From: CINDY McKIM
Chief Financial Officer

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Transportation Programming

Subject: **FINANCIAL ALLOCATION FOR PROJECTS WITH COSTS THAT EXCEED 20 PERCENT
OF THE PROGRAMMED AMOUNT
RESOLUTION FP-06-122**

RECOMMENDATION:

The California Department of Transportation (Department) recommends the California Transportation Commission (Commission) approve Resolution FP-06-122, allocating \$56,523,000 for the projects described on the following pages.

ISSUE:

The projects described on the following pages are programmed in the 2006 State Highway Operation and Protection Program (SHOPP) for \$39,011,000. The current estimate for the projects is \$56,523,000, exceeding the programmed amount by 45 percent. The Department is ready to proceed with these projects and is requesting an allocation at this time.

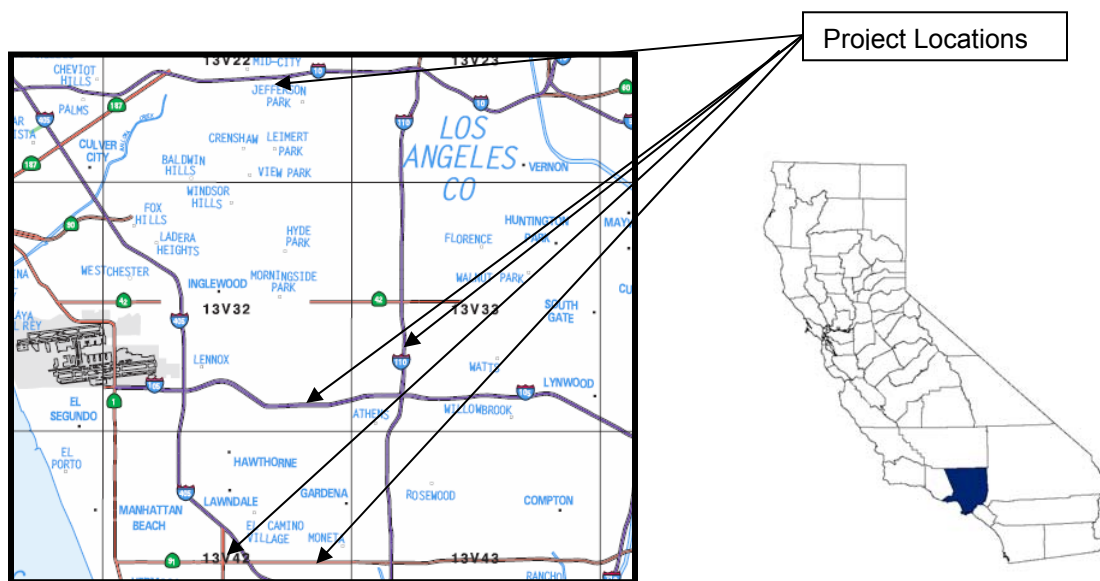
RESOLUTION:

Resolved, that \$56,523,000 be allocated from the Budget Act of 2006, Budget Act Items 2660-302-0042 and 2660-302-0890, to provide funds for the projects described on the following pages.

Project #	Allocation Amount	EA	Allocation
Recipient		PPNO	Amount
<u>RTPA/CTC</u>		Program/Year	
County	Location	PA&ED	Budget Year
Dist-Co-Rte	Project Description	PS&E	Item #
Postmile	Project Support Expenditures	CON ENG	Program
		CONST	Codes
			Total Amount
2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent			Resolution FP-06-122
1			
\$12,643,000	In Los Angeles County, at various locations on Route 10, 91, 105, 107, and 110. <u>Outcome/Outputs:</u> Construct/install	2267A1	2006-07
	68 litter removal devices to comply with Clean Water Act.	07-3015B	302-0042
Los Angeles		SHOPP/06-07	302-0890
07S-LA-Var			20.20.201.335
Var		\$8,755,000	
			\$12,643,000

RECOMMENDATION:

The Department recommends that this request for \$12,643,000 be approved to allow this project to be advertised.



PROJECT DESCRIPTION:

This project is located on Routes 10, 91, 105, 107 and 110 in Los Angeles County, at various locations. The project is to construct litter removal devices to eliminate trash discharges into the Los Angeles River and the Ballona Creek. A total of 68 devices are to be installed to retrofit the outlets of various existing highway drainage systems within the watersheds of these two separate water bodies.

Section 303(d) of the federal Clean Water Act (CWA) mandates assessments of the nation's water resources, and these water quality assessments are used to identify and list impaired waters. The resulting list is referred to as the 303(d) list. The CWA also requires the State to establish a priority ranking for impaired waters and to develop and implement a Total Maximum Daily Load (TMDL) requirement for the impaired waters of the state. A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality objectives and allocates those pollutant loadings to municipal dischargers, including the Department.

The Los Angeles River watershed and Ballona Creek watershed are 303(d) listed water bodies for trash. A Total Maximum Daily Load (TMDL) approved by the Regional Water Quality Control Board (RWQCB) requires the Department to remove trash from storm water discharges. The compliance schedule is spread over a ten year implementation period. During the ten year period of implementation, an average of ten percent reduction of trash load each year is required from each of the watersheds until zero trash waste load is attained.

Currently, progress towards meeting the third year goal of the waste load reduction is less than 30 percent complete. Similar projects within these watersheds will consequently need to be delivered for the next seven years to meet the compliance schedule for the TMDL.

FUNDING STATUS:

The project is currently programmed in the 2006 SHOPP for \$8,755,000. This request for \$12,643,000 results in an increase of \$3,888,000 (44.4 percent) above the current programmed amount. The increase to the cost of the project is due to item price increases for similar types of recent project bid results and construction costs of two on-going pilot projects.

REASONS FOR COST INCREASE:

This project was originally delivered in March 2006 at a moderate increase over the programmed amount. The project was shelved at that time due to higher priority work competing for limited funds. The project estimate was recently updated, but construction costs have risen dramatically with more recent bid opening data. The cost increases on similar items used in this project reflect those changes. The trash removal devices require high quantities of steel and concrete, which are items of high recent price increases. The devices have some stainless steel components, and these products have also been increasing in cost. Moreover, the project has large quantities of the structure excavation item, which has also seen large unit cost increases.

FUNDING OPTIONS:

OPTION A: Approve this request, as presented above, for \$12,643,000 to allow this project to be advertised.

OPTION B: Deny this request and direct the Department to adjust the project to remain within the programmed amount. The Department has considered this option and determined that reducing the scope of work on this project, and executing another project to complete the deleted work later, would result in greater costs and further delay compliance that the Department remove trash from storm water discharges.

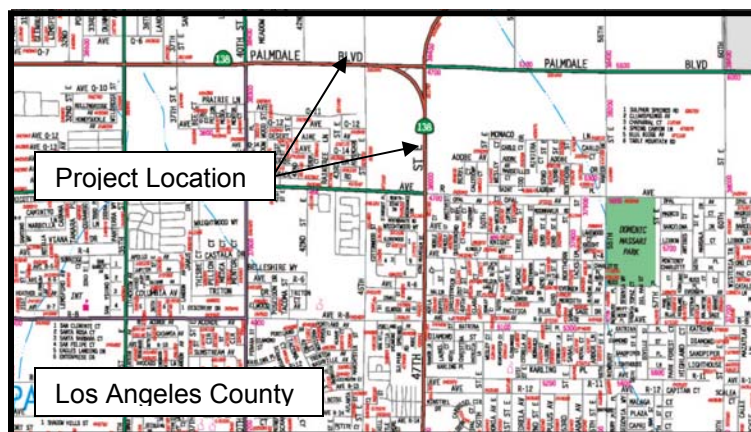
RECOMMENDED OPTION:

The Department recommends that this request for \$12,643,000, as presented in Option A above, be approved to allow this project to be advertised.

Project # Allocation Amount Recipient RTPA/CTC County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year PA&ED PS&E CON ENG CONST	Budget Year Item # Program Codes	Allocation Amount State Federal Total Amount
2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent			Resolution FP-06-122	
2 \$10,940,000	In Palmdale, at 40 th Street E to E Avenue R. <u>Outcome/Outputs:</u> Realign curve and construct one roundabout to eliminate four traffic conflict points.	239601 07-3291 SHOPP/06-07	2006-07 302-0890 20.20.201.010	\$10,940,000 \$10,940,000
Los Angeles 07S-LA-138 47.8/49.0		\$4,634,000		

RECOMMENDATION:

The Department recommends that this request for \$10,940,000 be approved to allow this project to be advertised.

**PROJECT DESCRIPTION:**

This project is located on Route 138 in Los Angeles County in Palmdale. At the project location, Route 138 makes a 90 degree turn from E Palmdale Boulevard to 47th Street E. The project need is due to the high number of accidents at three closely spaced intersections that are a result of this curve. Two of the intersections in this group have significant skews, one of which is currently signalized. This safety project will remove the signal and realign the curve with a new roundabout centered at the four-legged intersection.

Accident data shows this portion of Route 138 is above the statewide average for collisions. Safety is enhanced with the project while accommodating current and future traffic flow patterns consistent with the suburban growth demands seen in the area. The roundabout will make turn movements safer and easier, reduce speeds, and adequately accommodate trucks. Research shows high success in the use of roundabouts to reduce accident severity. Moreover, similar high speed applications in other states have been successful. The intersection will experience a greater reduction in accidents by constructing a roundabout in comparison to a traffic signal because the number of potential conflict points within the intersection are reduced. The project has strong local support from the city and community.

FUNDING STATUS:

The project is currently programmed in the 2006 SHOPP for \$4,634,000. This request for \$10,940,000 results in an increase of \$6,306,000 (136 percent) above the current programmed amount. The total amount of the increase to the cost of the project is due to the addition of necessary design elements and changes in the unit prices since the original programming estimate. These differences were due primarily to the paving items, traffic control items, electrical items, and environmental mitigation.

REASONS FOR COST INCREASE:

The project scope as originally programmed did not address all the design elements that are necessary for construction of this type of project, and unit prices for materials have increased. The paving quantity and unit price at the time of programming was significantly underestimated. In addition, this item has seen large cost increases. The traffic signing, striping, and traffic control items were significantly underestimated. Necessary electrical items including safety lighting, flashing beacons, and temporary signals for stage construction were not originally scoped. Environmental mitigation measures such as temporary fencing for endangered species, transplanting of native plants, and migratory bird protection elements were not included in the original estimate. Additional increases are in the area of contractor mobilization costs, time related overhead costs, and construction site management items.

FUNDING OPTIONS:

OPTION A: Approve this request, as presented above, for \$10,940,000 to allow this project to be advertised.

OPTION B: Deny this request and direct the Department to adjust the project to remain within the programmed amount. The Department has considered this option and determined that reducing the scope of work will not improve safety as effectively or timely, and waiting for a future programmed project will result in more disruption to the traveling public. This is a safety project and includes only the minimum scope of work to accomplish the purpose and need of the project.

RECOMMENDED OPTION:

The Department recommends that this request for \$10,940,000, as presented in Option A above, be approved to allow this project to be advertised.

Project # Allocation Amount Recipient RTPA/CTC County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year PA&ED PS&E CON ENG CONST	Budget Year Item # Program Codes	Allocation Amount State Federal Total Amount
2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent			Resolution FP-06-122	
3 \$32,941,000 San Bernardino 08S-SBd-15 169.8/182	Near Wheaton Springs, at Bailey Road to Yates Well Road. <u>Outcome/Outputs:</u> Construct 12 miles of truck descending lane to reduce the number of truck related accidents due to speed differentials between cars and trucks. (For purposes of construction, this project is being combined with related item 2.5b.(5), Project #10, under EA 4393U1.)	447901 08-0178G SHOPP/06-07 \$25,622,000	2006-07 302-0042 302-0890 20.20.201.010	\$2,777,000 \$30,164,000 \$32,941,000

RECOMMENDATION:

The Department recommends that this request for \$32,941,000 be approved to allow this project to be advertised.

**PROJECT DESCRIPTION:**

This project is located on Route 15 in San Bernardino County, southwest of the Nevada state line. This safety project will construct a new northbound lane for trucks descending twelve miles of steep downgrade. Before advertisement, the project will be combined with a separate pavement rehabilitation project within the same limits (agenda item 2.5b.(5), project #12, PPNO 0178H, EA 439321) and awarded as one contract.

The northbound lanes descend from Mountain Pass at an average grade of approximately four percent over twelve miles and in some locations sustained grades greater than five percent. On steep and long downgrades, trucks are using lower gears and slower speeds to conserve braking and ensure control. The speed differential between passenger cars and the slower moving trucks varies from 28 miles per hour (mph) at the top of the crest to 17 mph near the base of the slope. Moreover, the route alignment has various curves due to the mountainous terrain. These combined conditions have resulted in high truck related accidents within this segment of roadway. Adding the additional outside lane is anticipated to improve both operations and safety by allowing the slower moving trucks to operate separate from automobile traffic in a new outside lane.

Greater efficiencies and economies of scale are realized by combining this safety project and the proposed rehabilitation project into a single construction contract. Moreover, due to the isolated location of the project, a higher value combined project can expect to attract more potential bidders. The increased competition will result in savings in the form of lower bid amounts.

FUNDING STATUS:

The project is currently programmed in the 2006 SHOPP for \$25,622,000. This request for \$32,941,000 results in an increase of \$7,319,000 (28.6 percent) above the current programmed amount. The total amount of the increase to the cost of the project is due to changes in the unit prices since the original programming estimate and the addition of some necessary elements that were not part of the original project estimate.

REASONS FOR COST INCREASE:

The project cost increases are attributed to asphalt concrete, traffic control, electrical, and storm water management items. The twelve mile long widening has high quantities of asphalt concrete, which has experienced significant increases in price since the project was programmed. Moreover, some traffic related items were added due to the remote nature of the project. Additional need was seen for traveler assistance, freeway service patrol, and California Highway Patrol presence during construction. Electrical items were not originally scoped well due to a lack of information at the earlier programming stage, and storm water management requirements have increased over those originally assumed.

FUNDING OPTIONS:

OPTION A: Approve this request, as presented above, for \$32,941,000 to allow this project to be advertised.

OPTION B: Deny this request and direct the Department to adjust the project to remain within the programmed amount. The Department has considered this option and determined that reducing the scope of work will not improve safety as effectively or timely, and waiting for a future programmed project will result in more disruption to the traveling public and at greater cost. This is a safety project and includes only the minimum scope of work to accomplish the purpose and need of the project.

RECOMMENDED OPTION:

The Department recommends that this request for \$32,941,000, as presented in Option A above, be approved to allow this project to be advertised.